



# Tobacco Use Among Montana High School Students

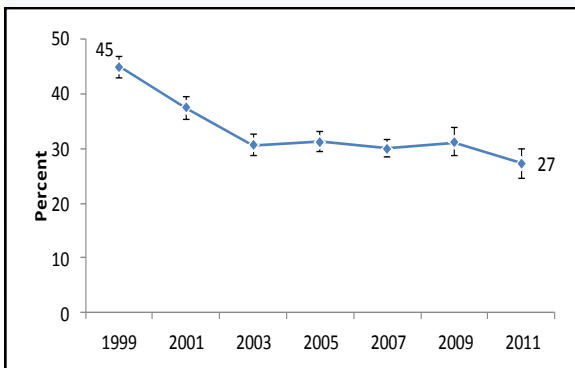
In 2011, approximately 19,000 Montana high school students were current tobacco users.<sup>1</sup> Tobacco use among high school students significantly decreased over the past decade from 45% (95% CI 42 - 48) in 1999 to 27% (95% CI 25 - 30) in 2011.<sup>1</sup> Recently, however, the decline in tobacco use has slowed. This surveillance report presents data from the Youth Risk Behavior Survey to examine trends in tobacco use among Montana high school students.

Too many students still experiment with these addictive products. The majority (88%) of adults who are daily smokers first used cigarettes before they were 18 years old and 99% started by age 26.<sup>2</sup> Nicotine is highly addictive and most tobacco users require multiple attempts before successfully quitting.<sup>3</sup> Moreover, use of more than one tobacco product may create greater nicotine dependency, and research indicates that it may be harder for these users to quit successfully.<sup>4</sup>

Tobacco products are ever changing — new products are continually developed and old products are re-packaged to be more appealing or to seem less harmful. The appeal of tobacco to youth may be inadvertently related to tobacco product regulation, pricing, and the locations which permit their use. Federal and state tobacco tax structures effectively make cigars and smokeless tobacco products cheaper alternatives to cigarettes. In addition, in response to smokefree air laws, tobacco manufacturers have developed new products which have been promoted as safe and legal to use in public places where smoking is no longer permitted. Examples of new tobacco products include Snus, a spitless variation of smokeless tobacco, and dissolvable tobacco products designed to look like breath mints, candy, or tooth picks.

**The Youth Risk Behavior Survey (YRBS)** is conducted in Montana schools every other year through a collaboration between the Centers for Disease Control and Prevention and the Montana Office of Public Instruction. The survey collects information on a variety of risk behaviors including cigarette smoking, use of smokeless tobacco (e.g., chewing tobacco, snuff, or dip), and cigar smoking (e.g., cigars, cigarillos, or little cigars). This report presents analysis of 21,094 high school students in grades 9 through 12 who completed the YRBS between 1999 and 2011. Students who had missing information on either cigarette smoking, smokeless tobacco use, or cigar smoking were excluded from the analysis (n=1,317). Students who reported use of a particular tobacco product on one or more of the 30 days prior to the survey were classified as current users.

Figure 1. Tobacco use\* prevalence among Montana high school students, 1999-2011, Youth Risk Behavior Survey



\*Tobacco use was defined as students who report use of cigarettes, cigars (e.g. cigars, cigarillos, or little cigars) or smokeless tobacco (e.g. chewing tobacco, snuff, or dip) on one or more of the past 30 days.

Figure 2. Percent of Montana high school students who were current cigarette smokers, 1999-2011, Youth Risk Behavior Survey

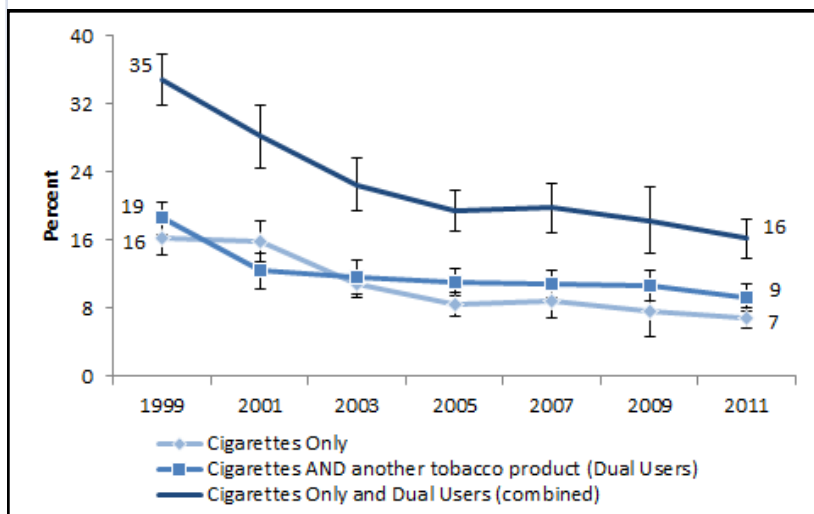


Figure 3. Percent of Montana high school students who were current cigar smokers (e.g. cigars, cigarillos, or little cigars), 1999-2011, Youth Risk Behavior Survey

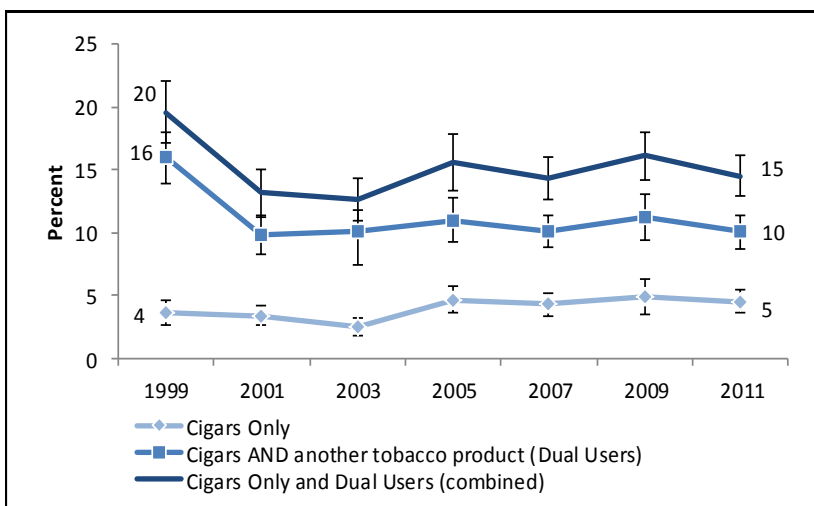
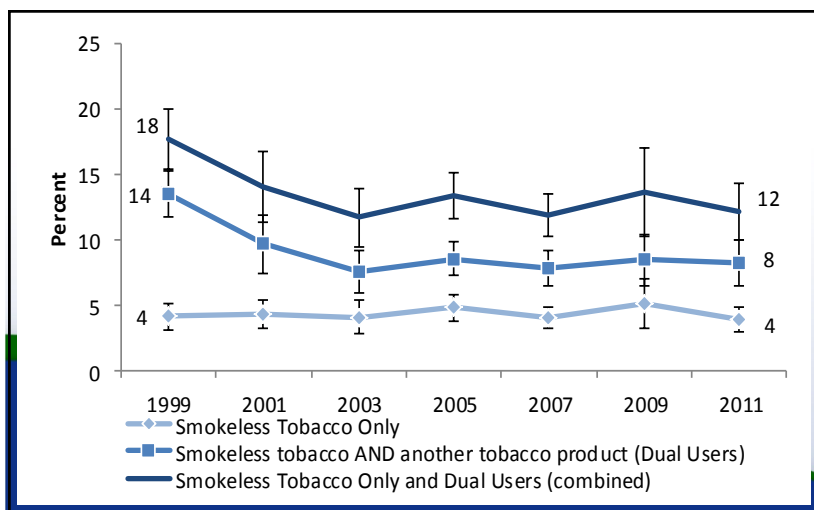


Figure 4. Percent of Montana high school students who were current smokeless tobacco users, 1999-2011, Youth Risk Behavior Survey



Montana high school students who use tobacco do not always use just one type of tobacco product.

### Cigarette Smoking

- Overall cigarette smoking decreased significantly from 35% (95% CI 32 - 38) in 1999 to 16% (95% CI 14 - 18) in 2011 (Figure 2).
- The percentage of students who smoked only cigarettes decreased significantly from 16% (95% CI 14 - 18) in 1999 to 7% (95% CI 6 - 8) in 2011 (Figure 2).
- The percentage of students that smoked cigarettes and used another tobacco product (9%) was similar to the percentage of students who exclusively smoked cigarettes (7%).

### Cigar Smoking

- Overall cigar smoking decreased significantly from 20% (95% CI 17 - 22) in 1999 to 15% (95% CI 13 - 16) in 2011 (Figure 3).
- The percentage of students who smoked only cigars did not statistically significantly change from 1999 to 2011 (Figure 3).
- The percent of students who used cigars and another tobacco product was significantly greater than the percent of students who used only cigars (Figure 3).

### Smokeless Tobacco (SLT) Use

- SLT use decreased significantly from 18% (95% CI 15 - 20) in 1999 to 12% (95% CI 10 - 14) in 2011 (Figure 4).
- The percentage of students who used SLT exclusively remained the same from 1999 to 2011 (Figure 4).
- In 2011, significantly more students used SLT and another tobacco product than used only SLT.

# Characteristics of Tobacco Users in 2011

## Gender

- A significantly higher percentage of female students were cigarette only or cigar only users compared to male students. No tobacco use was also more prevalent among female students compared to male students (Table).
- Significantly more male students than female students used only SLT or used two or more tobacco products (Table).

## Grade

- Use of all tobacco product types increased significantly as students' grade increased, with the exception of students who use only SLT. The percentage of students who use only SLT did not change significantly by grade (Table).

## Race

- No tobacco use was significantly more prevalent among White and Other race students compared to American Indian students (Table).
- The proportion of American Indian students who were cigarette only users was significantly higher than White or Other race students (Table).
- There was no statistical difference by race in the prevalence of students who used two or more tobacco products (Table).

## Tobacco Products

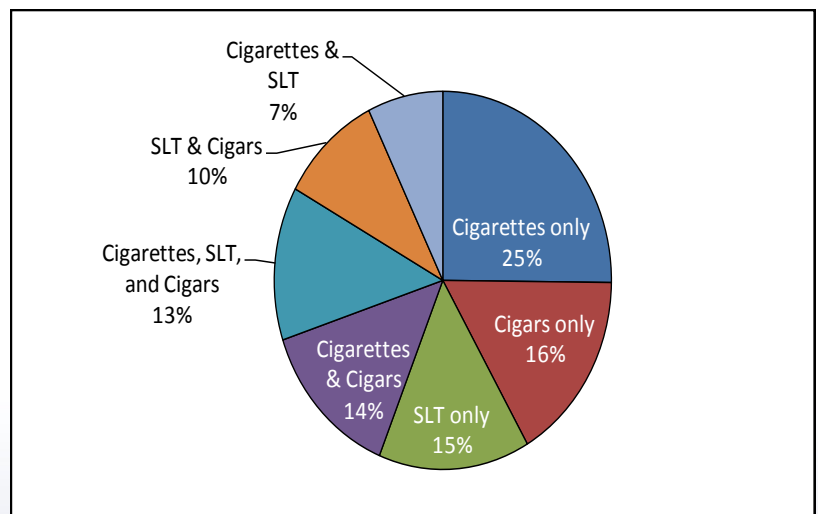
- Smoking cigarettes only was the most prevalent behavior among tobacco users (25%; Figure 5).
- Almost half of the tobacco users used two or more tobacco products (44%; Figure 5).
- Approximately one in eight tobacco users (13%) used all three tobacco products in the past 30 days (Figure 5).

Table. Tobacco use in the past 30 days among Montana high school student by gender, grade, and race, 2011, Youth Risk Behavior Survey

	No tobacco use % (95% CI)	Cigarettes only % (95% CI)	SLT only % (95% CI)	Cigars only % (95% CI)	Two or more tobacco products % (95% CI)
<b>Total</b>	73 (70-75)	7 (6-8)	4 (3-5)	5 (4-5)	12 (10-14)
<b>Gender</b>					
<b>Male</b>	66 (62-69)	5 (4-7)	6 (5-8)	3 (2-4)	17 (15-20)
<b>Female</b>	80 (77-83)	9 (7-10)	2 (1-2)	6 (4-7)	7 (5-8)
<b>Grade</b>					
<b>9th grade</b>	81 (78-85)	5 (3-6)	4 (2-5)	2 (1-3)	8 (6-10)
<b>10th grade</b>	76 (73-79)	6 (4-8)	4 (3-6)	3 (2-4)	11 (8-13)
<b>11th grade</b>	72 (67-76)	8 (6-9)	4 (3-6)	5 (3-6)	12 (8-16)
<b>12th grade</b>	60 (56-65)	10 (7-12)	3 (2-5)	9 (6-12)	18 (15-21)
<b>Race</b>					
<b>White</b>	75 (72-77)	6 (5-6)	4 (3-5)	5 (4-6)	11 (10-13)
<b>American Indian</b>	52 (43-60)	23 (18-28)	--	--	20 (11-30)
<b>Other</b>	69 (64-74)	5 (3-8)	6 (3-8)	5 (3-7)	15 (11-20)

-- Insufficient data

Figure 5. Tobacco products used in the past 30 days among Montana high school students who were current tobacco users, 2011, Youth Risk Behavior Survey



# Report Highlights

- Youth tobacco use has significantly decreased in Montana over the past 10-years.
- More than one-quarter (27%) of Montana high school students were tobacco users in 2011.
- 44% of youth tobacco users used two or more tobacco products in 2011. Use of more than one product may create a greater nicotine dependency.

## References

1. Montana Office of Public Instruction, Youth Risk Behavior Survey, 1999-2011.
2. U.S. Department of Health and Human Services. Preventing Tobacco Use Among Youth and Young Adults: A Report of the Surgeon General -- Executive Summary; 2012.
3. A clinical practice guideline for treating tobacco use and dependence: 2008 update. A U.S. Public Health Service report. *Am J Prev Med*. 2008;35:158-176.
4. Tomar SL, Alpert HR, Connolly GN. Patterns of dual use of cigarettes and smokeless tobacco among US males: findings from national surveys. *Tob Control*. 2010;19:104-109.

## Recommendations

Communities, schools, and governments should address all tobacco products in their tobacco use prevention efforts, not just cigarettes. Evidence-based interventions to prevent and reduce tobacco use among youth include:

- **Public awareness**  
Be alert and share the knowledge of what is being promoted at local retail stores. Keep other parents, teachers, and administrators in that loop so that discussions with teens are informed and helpful.

- **School-based interventions**

Montana law prohibits use of all tobacco products on public school property. School administrators may implement tobacco-use prevention policies which go beyond the requirements of the state law. For more information visit: <http://opt.mt.gov/Programs/HealthTopics/index.html?gpm=12>

- **High unit price of tobacco products**

Price structures which eliminate differences in price on all tobacco products are an effective way to discourage youth tobacco use.

- **Tobacco Cessation**

Youth who are current tobacco users are encouraged to quit. Assistance in quitting is available for youth through the Montana Tobacco Quit Line (1-800-QUIT-NOW).

## Chronic Disease Prevention and Health Promotion

### BUREAU

1400 E Broadway  
Helena, MT 59620-2951

For more information contact:

**Lisa Schmidt, MPH**

Epidemiologist/Program Evaluator  
Montana Tobacco Use Prevention Program

(406) 444-0927

lschmidt2@mt.gov